

**THAMES RIVER FLOOD CONTROL PROJECT**

**NORWICH, CONN.**

**SHEPARD RIVER, CONNECTICUT**

**SPECIFICATIONS**  
**FOR THE**  
**IMPROVEMENT OF**  
**NORWICH**  
**CHANNEL**

**CONTRACT**



NEW ENGLAND DIVISION - CORPS OF ENGINEERS - WAR DEPARTMENT  
BOSTON, MASSACHUSETTS

MARCH 1947

THAMES RIVER FLOOD CONTROL PROJECT

SPECIFICATIONS

FOR

CONSTRUCTION

OF

NORWICH CHANNEL IMPROVEMENT

SKETUCKET RIVER

NORWICH, CONNECTICUT

28 MARCH 1947

NEW ENGLAND DIVISION

CORPS OF ENGINEERS

WAR DEPARTMENT

BOSTON, MASSACHUSETTS

Bid No. \_\_\_\_\_

Bidder \_\_\_\_\_

(Do not write above this line)

Serial No. 19-016-47-54

IN V I T A T I O N F O R B I D S  
(CONSTRUCTION CONTRACT)

NEW ENGLAND DIVISION  
CORPS OF ENGINEERS  
WAR DEPARTMENT  
31 ST. JAMES AVENUE  
BOSTON 16, MASS.  
28 MARCH 1947

Project: CONSTRUCTION OF NORWICH CHANNEL IMPROVEMENT, SHETUCKET RIVER,  
NORWICH, CONNECTICUT.

1. Sealed bids, in duplicate, will be received until 2:00 P.M., Eastern Standard Time, 18 April 1947, and then publicly opened, for furnishing all plant, labor, materials and equipment, and performing all work for the above-described project in strict accordance with the specifications, schedules, drawings and addenda.

2. Bids will be submitted in sealed envelopes upon the attached Government form of bid, and marked in the upper left hand corner "Bid, under Serial No. 19-016-47-54 to be opened 18 April 1947," the serial number indicating the project for which the bid is submitted. The bidder who is awarded the contract will be required to execute the War Department contract form for construction (W. D. Contract Form No. 2). This form is available at the Office of the Division Engineer, 31 St. James Avenue, Boston 16, Mass.

3. The right is reserved, as the interest of the Government may require, to reject any and all bids, to waive any informality in bids received, and to accept or reject any or all items of any bid, unless the bidder qualifies such bid by specific limitation.

4. Bid bond on U. S. Standard Form No. 24 in a penal sum of not less than twenty (20) per cent of the bid price will be required with each bid if the bid price is in excess of \$2,000.

5. Bidders should carefully examine the drawings and specifications, visit the site of the work, and fully inform themselves as to all conditions and matters which can in any way affect the work or the cost thereof. Should a bidder find discrepancies in, or omissions from, the drawings, specifications or other documents, or should he be in doubt as to their meaning, he should at once notify the Contracting Officer and obtain clarification prior to submitting any bid.

6. Each bidder shall inclose with his bid a statement of whether he is now or ever has been engaged in any work similar to that covered by the specifications herein, the year in which such work was performed and the manner of its execution, and giving such other information as will tend to show the bidder's ability to prosecute the required work.


7. The bidder shall state in his bid that he has available or under his control plant of the character and in the amount required to complete the proposed work within the specified time. Each bidder shall furnish a list of the plant proposed for use on the work.

8. There is no reason to expect that the Laurel Hill Bridge will be removed during the contract period of the Norwich Channel Improvement Project. Bidders should base their proposal on accomplishment of the work with the bridge in place.

9. Drawings will be furnished bona fide bidders on request. A deposit of \$10.00 per set will be required to insure their return. The deposit should be in the form of a United States money order or a certified check made payable to "The Disbursing Officer, New England Division, Corps of Engineers, Boston, Mass." The deposit, if made, will be refunded if the drawings are returned in good condition, transportation prepaid, to the issuing office within fifteen (15) days after the opening of bids.

10. Modifications prior to date set for opening bids. - The right is reserved, as the interest of the Government may require, to revise or amend the specifications and/or drawings prior to the date set for opening bids. Such revisions and amendments, if any, will be announced by an addendum or addenda to this Invitation for Bids. Copies of such addenda as may be issued will be furnished to all prospective bidders. If the revisions and amendments are of a nature which requires material changes in quantities or prices bid or both, the date set for opening bids may be postponed by such number of days as in the opinion of the Division Engineer will enable bidders to revise their bids. In such case, the addendum will include an announcement of the new date for opening bids.

FOR THE DIVISION ENGINEER:

  
K. M. PATTEE  
Lt. Col., Corps of Engineers  
Executive Officer

STATEMENT OF WORK  
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SPECIFICATIONS

PART I

STATEMENT OF WORK

SW-1. DESCRIPTION OF WORK. - a. Work to be done. - The work consists of furnishing all plant, labor, materials and equipment, and performing all work complete in strict accordance with these specifications and schedules and drawings forming parts thereof for CONSTRUCTION OF NORWICH CHANNEL IMPROVEMENT, SHETUCKET RIVER, NORWICH, CONNECTICUT.

b. Location. - The site of the work is located in the Shetucket River near its confluence with the Yantic River in the city of Norwich, Connecticut.

c. Appropriation. - 21X3113 - FLOOD CONTROL, GENERAL.

d. Authority. - The work provided for herein is authorized by the Flood Control Act of 18 August 1941 (Public No. 228, 77th Congress, 1st Session) as modified by the Flood Control Act of 22 December 1944 (Public No. 534, 78th Congress, 2nd Session).

SW-2. PRINCIPAL FEATURES. - The work to be performed includes the following principal features:

- a. Close drilling.
- b. Rock excavation.
- c. Removal and disposal of rock.

The above general outline of principal features does not in any way limit the responsibility of the Contractor to perform all work and furnish all plant, labor, materials and equipment required by the specifications and the plans and drawings referred to therein.

GENERAL CONDITIONS  
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## PART II

### GENERAL CONDITIONS

GC-1. SCOPE OF WORK. - The work to be performed under this contract consists of furnishing all plant, materials, equipment, supplies, labor and transportation, including fuel, power, water (except any materials, equipment, utility or service, if any, specified herein to be furnished by the Government), and performing all work as required by Article 1 of the contract, in strict accordance with the specifications, schedules and drawings, all of which are made a part hereof, and including such detail drawings as may be furnished by the Contracting Officer from time to time during the prosecution of the work in explanation of said drawings.

GC-2. CHARACTER OF WORK AND MECHANICS. - The work shall be executed in the best and most workmanlike manner by qualified, careful and efficient mechanics in strict accordance with the drawings and specifications.

GC-3. SITE INVESTIGATION AND REPRESENTATIONS. - The Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides or similar physical conditions at the site, the conformation and condition of the ground, the character, quality and quantity of surface and subsurface materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, and all other matters which can in any way affect the work or the cost thereof under this contract. Any failure by the Contractor to acquaint himself with all the available information concerning these conditions will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Government assumes no responsibility for any understanding or representations made by any of its officers or agents during or prior to the negotiation and execution of this contract, unless (1) such understanding or representations are expressly stated in the contract and (2) the contract expressly provides that responsibility therefor is assumed by the Government. Representations made but not so expressly stated and for which liability is not expressly assumed by the Government in the contract shall be deemed only for the information of the Contractor, and the Government will not be liable or responsible therefor.

GC-4. OPERATIONS AND STORAGE AREAS. - a. All operations of the Contractor (including storage of materials) upon Government premises shall be confined to areas authorized or approved by the Contracting Officer. No unauthorized or unwarranted entry upon or passage through, or storage or disposal of materials shall be made upon Government



premises. Government premises adjacent to the construction will be made available for use by the Contractor without cost whenever such use will not interfere with other Government uses or purposes. The Contractor shall be liable for any and all damage caused by him to such Government premises. The Contractor shall hold and save the Governments, its officers and agents, free and harmless from liability of any nature or kind arising from any use, trespass or damage occasioned by his operations on premises of third persons.

b. Temporary buildings (storage sheds, shops, offices, etc.) may be erected by the Contractor only with the approval of the Contracting Officer, and shall be built with labor and materials furnished by the Contractor without expense to the Government. Such temporary buildings and/or utilities shall remain the property of the Contractor, and will be removed by him at his expense upon the completion of the work. With the written consent of the Contracting Officer, such buildings and/or utilities may be abandoned and need not be removed.

c. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways or construct and use such temporary roadways as may be authorized by the Contracting Officer. Where materials are transported in the prosecution of the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state or local law or regulation. When it is necessary to cross curbs or sidewalks, protection against damage shall be provided by the Contractor, and any damaged roads, curbs or sidewalks shall be repaired by, or at the expense of the Contractor.

GC-5. BASE LINES AND GRADES. - The Contractor shall lay out his work from base lines and grades established by the Government and shall be responsible for all measurements in connection therewith. The Contractor shall, at his own expense, furnish all stakes, templates, plat-forms, equipment, ranges and labor that may be required in setting and cutting or laying out any part of the work. The Contractor will be held responsible for the proper execution of the work to such lines and grades as may be established or indicated by the Contracting Officer, and all stakes or other marks thus established shall be preserved by him until their removal is authorized by the Contracting Officer. The Contracting Officer will furnish, on request from the Contractor, all location and limit marks reasonably necessary for the conduct of the work.

GC-6. PROGRESS CHARTS, AND REQUIREMENTS FOR SUNDAY, HOLIDAY AND NIGHT WORK. - a. The Contractor shall, within five days or within such time as determined by the Contracting Officer, after date of commencement of work, prepare and submit to the Contracting Officer for approval a practicable schedule, showing the order in which the Contractor proposes to carry on the work, the date on which he will start the several salient features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same. The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion at any

time. The Contractor shall enter on the chart the actual progress at the end of each week or at such intervals as directed by the Contracting Officer, and shall immediately deliver to the Contracting Officer three copies thereof.

b. The Contractor shall furnish sufficient forces, construction plant and equipment, and shall work such hours, including night shifts, overtime operations and Sunday and holiday work, as may be necessary to insure the prosecution of the work in accordance with the approved progress schedule. If, in the opinion of the Contracting Officer, the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve his progress, and the Contracting Officer may require him to increase the number of shifts, and/or overtime operations, days of work and/or the amount of construction plant, all without additional cost to the Government.

c. Failure of the Contractor to comply with the requirements of the Contracting Officer under this provision shall be grounds for determination by the Contracting Officer that the Contractor is not prosecuting the work with such diligence as will insure completion within the time specified. Upon such determination the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part thereof, in accordance with the Delays-Damages Article of the contract.

GC-7. SUBCONTRACTORS. - At the request of the Contracting Officer the Contractor will notify the Contracting Officer in writing of the names of all Subcontractors proposed for the work, as well as those Subcontractors who have been engaged previously, together with the extent and character of the work to be done by each Subcontractor. If, for sufficient reason, at any time during the progress of the work, the Contracting Officer determines that any Subcontractor is incompetent or undesirable, he will notify the Contractor accordingly, and immediate steps will be taken for cancellation of such subcontract. Subletting by Subcontractors shall be subject to the same regulations. Nothing contained in this contract shall create any contractual relation between any Subcontractor and the Government.

GC-8. PROTECTION OF MATERIAL AND WORK. - The Contractor shall at all times protect and preserve all materials, supplies and equipment of every description (including property which may be Government-furnished or owned) and all work performed. All reasonable requests of the Contracting Officer to inclose or specially protect such property shall be complied with. If, as determined by the Contracting Officer, material, equipment, supplies and work performed are not adequately protected by the Contractor, such property may be protected by the Government, and the cost thereof may be charged to the Contractor or deducted from any payments due to him.

GC-9. PRESERVATION OF EXISTING VEGETATION. - a. The Contractor will preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site which do not unreasonably interfere with the construction as may be determined by the Contracting Officer.

The Contractor will be responsible for all unauthorized cutting or damaging of trees and shrubs, including damage due to careless operation of equipment, stockpiling of materials or tracking of grass areas by equipment.

b. Care will be taken by the Contractor in felling trees authorized for removal, to avoid any unnecessary damage to vegetation that is to remain in place. Any limbs or branches of trees broken during such operations shall be trimmed with a clean cut and painted with an approved tree pruning compound if required by the Contracting Officer. The Contractor will be liable for, or may be required to replace or restore at his own expense all vegetation not protected and preserved as required herein that may be destroyed or damaged.

GC-10. POSSESSION PRIOR TO COMPLETION. - The Government shall have the right to take possession of or use any completed or partially completed part of the work. Such possession or use shall not be deemed an acceptance of any work not completed in accordance with the contract. If such prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment in the contract price and/or the time of completion will be made, and the contract shall be modified in writing accordingly.

GC-11. SUSPENSION OF WORK. - The Contracting Officer may order the Contractor to suspend all or any part of the work for such period of time as may be determined by him to be necessary or desirable for the convenience of the Government. Unless such suspension unreasonably delays the progress of the work and causes additional expense or loss to the Contractor, no increase in contract price will be allowed. In the case of suspension of all or any part of the work for an unreasonable length of time causing additional expense or loss, not due to the fault or negligence of the Contractor, the Contracting Officer shall make an equitable adjustment in the contract price and modify the contract accordingly. An equitable extension of time for the completion of the work in the event of any such suspension will be allowed the Contractor, provided, however, that the suspension was not due to the fault or negligence of the Contractor.

GC-12. ACCIDENT PREVENTION, FIRE PREVENTION, AND SANITATION. - The handbook "Safety Requirements" approved by the Chief of Engineers 16 December 1941, as revised 1 January 1946 (copy of which is on file in the office of the authorized representative of the Contracting Officer on the project) and as may be amended, will govern in the prosecution of the work in accordance with the Accident Prevention Article of the contract.

GC-13. LABOR REPORTS. - As required by the Department of Labor, the Contractor shall promptly furnish, and shall cause any Subcontractors to furnish in like manner, within seven days after the regular payment date of each weekly payroll, to the Contracting Officer, a copy of such payroll, together with a sworn affidavit with respect to the wages paid each of the employees (which shall not be deemed to apply to persons in classifications higher than laborer and mechanic and those who are the immediate supervisors of such employees) engaged on the work. In addition

the Contractor shall furnish, and cause any Subcontractors to furnish in like manner, an additional copy of the payroll, together with the sworn affidavit, as indicated herein for the weekly payroll period ending nearest January 15, April 15, July 15 and October 15. The Contractor shall also prepare and furnish such other labor reports as may be required by the Department of Labor.

GC-14. PREFERENCE FOR DOMESTIC ARTICLES. - Because the materials listed below, or the materials from which they are manufactured, are not mined, produced or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, their use in the work herein specified (subject to the requirements of the specifications) is authorized without regard to the country of origin:

Asbestos	Nickel
Chromium	Oil, China wood (Tung oil)
Clay, English ball	Platinum
Clay, English china	Rubber
Copper, natural - nickel alloy	Silk
Cork	Sisal
Jute	Tin
Kaurigum	Wood, Balsa
Lac	Wood, Teak

Articles, materials, or supplies manufactured in the United States and containing mercury, antimony, tungsten, or mica of foreign origin may be used (subject to the requirements of the specifications) in the work herein specified because such manufactured articles, materials, or supplies have been manufactured in the United States substantially all from articles, materials, or supplies, mined, produced, or manufactured, as the case may be, in the United States.

GC-15. CLEANING UP. - The Contractor shall at all times keep the construction area, including storage areas used by him, free from accumulations of waste material or rubbish, and prior to completion of the work remove any rubbish from and about the premises and all tools, scaffolding, equipment and materials not the property of the Government. Upon completion of the construction the Contractor shall leave the work and premises in a condition satisfactory to the Contracting Officer.

SPECIAL CONDITIONS  
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### PART III

#### SPECIAL CONDITIONS

SC-1. COMMENCEMENT, PROSECUTION AND COMPLETION. - The Contractor will be required to commence work under this contract within fifteen (15) calendar days after the date of receipt by him of notice to proceed, to prosecute said work with faithfulness and energy, and to complete the entire work ready for use not later than one hundred and eighty (180) calendar days after the date of receipt by him of notice to proceed. The time stated for completion shall include final clean-up of the premises.

SC-2. LIQUIDATED DAMAGES. - In case of failure on the part of the Contractor to complete the work within the time fixed in the contract or any extensions thereof, the Contractor shall pay the Government as liquidated damages the sum of seventy-five dollars (\$75.00) for each calendar day of delay until the work is completed or accepted.

SC-3. ESTIMATED QUANTITIES. - a. The quantities listed below are estimates only. Within the limit of available funds the Contractor will be required to complete the work specified herein in accordance with the contract and at the contract price or prices, whether it involves quantities greater or less than the following estimates:

<u>Item No.</u>	<u>Estimated Quantities</u>	<u>Unit</u>	<u>Description of Item</u>
1	13,600	lin.ft.	Close Drilling
2	16,700	cu.yd.	Rock Excavation

b. The limits of the work as shown on the drawings are approximate, and the Contracting Officer reserves the right to increase the work required to the ultimate project as shown on the drawings, or decrease the work by not more than 25 per cent of the total contract price. The estimated quantities for the ultimate project are as follows:

<u>Item No.</u>	<u>Estimated Quantities</u>	<u>Unit</u>	<u>Description of Item</u>
1	31,000	lin.ft.	Close Drilling
2	33,000	cu.yd.	Rock Excavation

SC-4. PAYMENTS. - Payments will be made as provided in Article 16 of the contract. Unless otherwise authorized in writing by the Contracting Officer, the items of work for which payment will be made shall be limited to those listed and enumerated in the contract. The unit prices stated in the contract will be used in determining the amount to be paid and shall constitute full and final compensation for all the work.

SC-5. CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS. • a. Ten (10) sets of contract drawings, maps and specifications will be furnished the Contractor without charge. Additional sets will be furnished on request at the cost of reproduction.

b. The work shall conform to the following contract drawings and maps, all of which form a part of these specifications and are available in the Corps of Engineers Office, 31 St. James Avenue, Boston 16, Mass.:

#### LIST OF DRAWINGS

<u>Sheet No.</u>	<u>Title</u>	<u>File No.</u>
1	Location Plan, Profile and Index	TH-10-1001
2	Site Plan and Soundings	TH-10-1002
3	Layout Plan and Grade Profiles	TH-10-1009
4	Sections No. 1	TH-10-1004
5	Sections No. 2	TH-10-1005
6	Sections No. 3	TH-10-1006
7	Sections No. 4	Th-10-1007
8	Sections No. 5	TH-10-1008

SC-6. PHYSICAL DATA. - The information and data furnished or referred to below are not intended as representations or warranties but are furnished for information only. It is expressly understood that the Government will not be responsible for the accuracy thereof or for any deduction, interpretation or conclusion drawn therefrom by the Contractor.

a. Local conditions. - The site of the work is located on tide water with a mean range of 3.1 feet and a maximum range of approximately 8 feet.

b. Channel traffic. - There is no traffic in the Shetucket River at the site of the work. Traffic along the route to the dumping grounds consists of towed barges, scows, lighters and small tankers, with an occasional steamer. The daily number of movements is not sufficient to interfere seriously with the work. The total traffic for the year 1944 at the Port of Norwich, Connecticut consisted of forty-nine (49) barges.

c. Obstruction of channel. - The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of War, in accordance with the provisions of section 7 of the River and Harbor Act approved August 8, 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel, to such an extent as may be necessary to afford a practicable passage. Upon completion of the work the Contractor shall promptly remove his plant, including ranges, buoys, piles and other marks placed by him under the contract in navigable waters or on shore.

d. Interference with railroad traffic. - (1) Work adjacent to the railroad tracks shall be conducted in such a manner that there will be no interference with train service. Excavation operations shall be conducted both with respect to time and methods as may be required by the railroad.

(2) The Contractor shall notify the railroad company of impending operations, and if inspectors or flagmen are required by the railroad company, the Contractor shall enter into an agreement with the company for the services of the required personnel. The cost of these services shall be borne by the Contractor.

SC-7. DATUM AND BENCH MARKS. - The plane of reference of mean sea level datum as used in these specifications is that determined by the following bench mark:

a. Location and description. - Norwich, on river front, about 200 feet west of highway bridge, over river, near east end of freight warehouse of New York, New Haven and Hartford Railroad in capstone of granite sea wall; U.S.C.G.S. B.M.

b. Elevation. - (M.S.L.) 11.225 feet.

c. Identification. - Bronze tablet stamped "No. 2-11.31".

SC-8. MISPLACED MATERIAL. - Should the Contractor, during the progress of the work, lose, dump, throw overboard, sink or misplace any material, plant, machinery or appliance which in the opinion of the Contracting Officer may be dangerous to or obstruct navigation, the Contractor shall recover and remove the same with the utmost dispatch. The Contractor shall give immediate notice, with description and location of such obstructions, to the Contracting Officer or inspector, and when required shall mark or buoy such obstructions until the same are removed. Should he refuse, neglect or delay compliance with the above requirements, such obstructions may be removed by the Contracting Officer, and the cost of such removal may be deducted from any money due or to become due the Contractor, or may be recovered under his bond. The liability of the Contractor for the removal of a vessel wrecked or sunk without fault or negligence shall be limited to that provided in sections 15, 19 and 20 of the River and Harbor Act of March 3, 1899.

SC-9. BONDS. - a. Payment bond. - If the contract price exceeds \$2,000.00, the Contractor agrees to furnish a payment bond with good and sufficient surety or sureties acceptable to the Government for the protection of persons furnishing material or labor in connection with the performance of the work under this agreement on U. S. Standard Form No. 25-A or U. S. Standard Form No. 25-C. The penal sum of such payment bond will be as follows: (1) When the contract price is \$1,000,000 or less, 50% of the contract price; (2) When the contract price is in excess of \$1,000,000 and less than \$5,000,000, 40% of the contract price; (3) When the contract price is \$5,000,000, or more, \$2,500,000.00.



b. Performance bond. - If the contract price exceeds \$2,000.00, the Contractor further agrees to furnish a performance bond with good and sufficient surety or sureties acceptable to the Government in connection with the performance of the work under this agreement on U. S. Standard Form No. 25 or U. S. Standard Form No. 25-B. The penal sum of such performance bond will be 50 per cent of the contract price.

c. Any bonds required hereunder will be dated as of the same date as the contract and shall be furnished by the Contractor to the Government at the time the contract is executed.

SC-10. PATENT INDEMNITY. - The Contractor agrees to indemnify the Government, its officers, agents, servants and employees, against liability including costs and expenses for infringement upon any Letters Patent of the United States (except Letters Patent issued upon an application which is now or may hereafter be ordered to be kept secret under the provisions of the Act of October 6, 1917, as amended, 35 (U.S.C. 42) occurring in the performance of this contract or arising (in respect only of inventions which are actually embodied in items manufactured or supplied hereunder, or are involved in the use, unless there be more than one practicable use, of such items) by reason of the use or disposal of such items by or for the account of the Government.

SC-11. RATES OF WAGES. - a. The minimum wages to be paid laborers and mechanics on this project, as determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the pertinent locality, are as set forth below.

b. Any class of laborers and mechanics not listed below, employed on the contract, shall be classified or reclassified conformably to the schedule set out below by mutual agreement between the Contractor and class of labor concerned, subject to the prior approval of the Contracting Officer. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question, accompanied by the recommendation of the Contracting Officer, shall be referred to the Secretary of Labor for final determination.

Classification of Laborers  
and Mechanics

Minimum Rates of Wages  
Per Hour

PREDETERMINED WAGE RATES ARE NOT AVAILABLE  
AT THIS TIME. AS SOON AS RECEIVED, AN  
ADDENDUM WILL BE ISSUED FURNISHING WAGE  
RATES AS APPROVED.

SC-12. OBSTRUCTION AND DANGER LIGHTS AND SIGNAL LIGHTS. - a. In addition to the requirements of Paragraph GC-13 of these specifications, the Contractor shall comply with all State and local laws and regulations relating to obstruction and danger lights and provide, erect and

maintain at no additional expense to the Government all necessary barricades, warning signs and lights. The Contractor shall also furnish such watchmen and additional safeguards as the Contracting Officer may require. The Contractor will be held responsible for all damage resulting from failure to observe these requirements.

b. The Contractor shall display signal lights and conduct his operations in accordance with the provisions of the handbook "Rules and Regulations of The Commerce and War Departments Governing the Display of Signals on, and the Operation of all Craft and Accessories Working on Wrecks, Engaged in Dredging, Surveying or other Work of Improvement, and the Use and Navigation of the Water in the Vicinity, in all Harbors, Rivers and Inland Waters of the United States, including the Great Lakes and their Connecting and Tributary Waters," approved by the Secretary of War, May 19, 1928 and subsequently amended November 24, 1931, October 3, 1938, January 12, 1939 and March 10, 1941.

SC-13. WATER. - The responsibility shall be upon the Contractor to provide and maintain at his own expense an adequate supply of water of a quantity suitable for his use for construction and domestic consumption. At his own expense he shall install and maintain any necessary water supply connections and piping, but only at such locations and in such workmanlike manner as may be authorized by the Contracting Officer. All water shall be carefully conserved. Before final acceptance, temporary connections and piping installed by the Contractor shall be removed in a workmanlike manner to the satisfaction of the Contracting Officer.

SC-14. ELECTRICITY. - All electric current required by the Contractor shall be furnished at his own expense. All temporary connections for electricity shall be subject to the approval of the Contracting Officer. All temporary lines shall be furnished, installed, connected and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer and shall be removed by the Contractor in like manner at his expense prior to completion of the construction.

SC-15. PLANT. - The Contractor agrees to keep on the job sufficient plant to meet the requirements of the work. Plant shall be kept at all times in condition for efficient work, and subject to the inspection of the Contracting Officer. All scows must be kept in good condition, the coamings repaired, and the pockets provided with proper doors or appliances to prevent leakage of material. No reduction in the capacity of the plant employed on the work shall be made except by written permission of the Contracting Officer. The measure of the "capacity of the plant" shall be its actual performance on the work to which these specifications apply.

SC-16. INSPECTION. - a. The work will be conducted under the general direction of the Contracting Officer and is subject to inspection by his appointed inspectors to insure strict compliance with the terms of the contract. The inspectors will direct the maintenance of the gages, ranges, location marks and limit marks in proper order and position. No inspector is authorized to change any provision of the specifications without written authorization of the Contracting Officer, nor shall the presence or absence of an inspector relieve the Contractor from any requirements of the contract.

b. The Contractor will be required to furnish, on the request of the Contracting Officer or any inspector, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the dumping grounds.

c. Should the Contractor refuse, neglect or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor.

SC-17. PROTECTION OF EXISTING STRUCTURES, UTILITIES AND WORK. - The Contractor shall protect all existing structures, utilities and work of any kind against damage or interruption of service. Damage or interruption of service resulting from failure so to do shall be repaired or restored promptly by or at the expense of the Contractor.

SC-18. MEALS FOR INSPECTORS. - If the Contractor maintains on this work an establishment for the subsistence of his own employees, he shall, when required, furnish to inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The meals furnished will be paid for by the Government at the rate of 30 cents per person for each meal.

SC-19. DIVING OPERATIONS. - In addition to the Safety Requirements as outlined under paragraph GC-12, all diving operations will be conducted in accordance with the following rules:

a. Diver shall be examined by physician before starting work on project.

b. Trained crew shall be available. Crew shall include a person familiar with emergency treatment for bends, squeezes, asphyxiation, drowning.

c. Telephone (for communication between diver and surface) shall be provided on all diving operations.

d. Air supply shall be checked for adequacy and possible contamination due to improper location of air intake, decomposition of compressor cylinder lubricant and similar causes. A suitable oil separator and air filter shall be provided.

e. A reserve compressor or emergency air supply shall be provided.

f. When icing of the air hose interferes with diver's air supply, diving shall be suspended until this condition can be eliminated.

g. Diver shall be limited to a working period of two hours at any given time.

SC-20. USE OF EXPLOSIVES. - a. The use of explosives will be permitted subject to such restrictions as to the amount to be used in any one blast and as to the time of firing the blast as may be necessary for the protection of life and property.

b. The Contractor shall be responsible for all damages of whatever character to persons or property resulting either from the use of explosives or from any other operations of the Contractor. The Contractor will be required to comply with all Federal and local regulations governing the transportation, storage, and use of explosives. The procurement and use of explosives shall conform to the requirements of the Federal Explosives Act, Public Law No. 381, 77th Congress, approved December 26, 1941.

c. No restriction or restrictions imposed upon the use of explosives or other action taken by the Contracting Officer will operate to relieve the Contractor from any part of his responsibility as provided in this contract.

SC-21. FINAL EXAMINATION AND ACCEPTANCE. - As soon as practicable after the completion of the entire work or any section thereof, as in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding, or by sweeping, or both, as determined by the Contracting Officer. The Contractor or his authorized representative will be notified when soundings and/or sweepings are to be made, and will be permitted to accompany the survey party. When the area is found to be in a satisfactory condition, it will be accepted finally. Should more than two sweeping operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sweeping, the cost of such third and any subsequent sweeping operations will be charged against the Contractor at the rate of one hundred and fifteen dollars (\$115.00) per day for each day in which the Government sweeping plant is engaged in sweeping and/or is en route to or from the site or held at or near the said site for such operations.

TECHNICAL PROVISIONS  
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## PART IV

### TECHNICAL PROVISIONS

TP1-1. WORK INCLUDED. - The Contractor shall furnish all labor, materials and equipment and shall perform all operations in connection with the close drilling, excavation and disposal of all materials required for the completion of the project as indicated on the drawings, specified herein or designated by the Contracting Officer

TP1-2. CLOSE DRILLING (Item 1). - a. Work included. - The Contractor shall close drill vertically along the side limits of the rock excavation as shown on the drawings or as established in the field by the Contracting Officer. The right is reserved to eliminate such part of the close drilling as the Contracting Officer may find to be unnecessary.

b. Description. - The spacing of holes and method of drilling shall be determined from the field conditions encountered as the work progresses, and as approved by the Contracting Officer. Blasting operations shall be performed so as not to fracture the rock beyond the line of drill holes. In the line drilling a variation of not more than six (6) inches from the exact line shall be allowed. The close drilling shall extend to a depth of not less than one foot below the bottom grades of the excavation as shown on the drawings or as established by the Contracting Officer.

c. Measurement and payment. - (1) Measurement for payment for "Close Drilling" under Item 1 will be the sum of the depths of holes as drilled measured in lineal feet between the original rock surface and the bottom limit of close drilling as shown on the drawings or established by the Contracting Officer.

(2) Payment for close drilling will be made at the contract unit price, Item 1, "Close Drilling" and shall include payment for all labor, materials and equipment necessary to complete the work as specified herein.

TP1-3. ROCK EXCAVATION. - a. Work included. - (1) Rock excavation shall consist of the removal, hauling and disposal of the rock and all other material and debris encountered within the lines and grades shown on the drawings, specified herein or designated by the Contracting Officer.

(2) From investigations and surveys at the site it is assumed that conditions are approximately as indicated on the drawings, but the nature of the materials and the stability of the stream bed or banks are not guaranteed. It is the intent of the Government that excavations shall be made to the lines and grades shown on the drawings, but the right is reserved to modify any part of the work if, in the opinion of the Contracting Officer, conditions require such modification (see Articles 3 and 4 of the contract).

b. Removal. - (1) Excavation may be carried on by any approved method and by the use of any excavating and hauling equipment especially adapted to the work. All operations shall be performed in accordance with a schedule of operations approved by the Contracting Officer (see Paragraph GC-6). All excavated material, unless otherwise provided in these specifications, shall be removed to the lines and grades indicated on the drawings, or established by the Contracting Officer. The rock shall be excavated to the prescribed lines and grades with an allowable tolerance of 6 inches. If, in the final survey, materials are found to have been left within the allowable tolerance, the Contractor shall remove them without additional compensation.

(2) Excavation shall start at the longitudinal center of the work and be carried shoreward toward the final sides of the excavation. After each blast, the loose material shall be removed before succeeding blasts will be permitted in a shoreward direction. The widths of rock cuts, drilled and blasted, shall be decreased as they approach the final sides of the excavation, with the final cut adjacent to the close drilling not exceeding three (3) feet in width. The close drilling adjacent to the final cut shall be completed prior to the blasting of the final cut. After the initial blasting of rock, all further blasting shall be done toward a free or unconfined face of rock.

c. Blasting. - (1) Blasting and the use of explosives shall be conducted as provided for in Paragraphs GC-12 and SC-20.

(2) Blasting will be permitted only when proper precautions are taken for the protection of all persons, the work and property. All damage to the work and to any property resulting from construction operations shall be repaired or paid for by the Contractor at no additional expense to the Government. All operations of the Contractor in connection with the transportation, storage, and use of explosives shall be in accordance with applicable State, County and City laws and subject to the approval of the Contracting Officer.

(3) All necessary precautions shall be taken in blasting operations to preserve the rock outside the lines of excavation in the soundest possible condition. To accomplish this, the Contractor shall determine the spacing of drill holes across the cut and also regulate the amount and strength of explosives, so that the rock outside the lines of excavation will not be shattered. Blasting shall be done only to the lines and grades shown on the drawings or as approved by the Contracting Officer.

(4) The Contractor will be required, before the work is started, to submit plans and proposed methods of operations in carrying out the rock excavation work. Approval by the Contracting Officer of the method of blasting or the strength and amount of explosives used will not relieve the Contractor of his responsibility in blasting operations.

d. Disposal of materials. - (1) All excavated material of every description shall be satisfactorily disposed of in a public dumping ground unless other disposal areas are approved. The nearest public dumping ground is the New London Dumping Ground, described as follows:

New London Dumping Ground

An Area one nautical mile square, the sides of which run true north and south and true east and west. The center is at the intersection with the New London Light bearing north magnetic, at a distance of 6,150 yards and the Southwest Ledge bearing north by east magnetic, at a distance of 4,700 yards. The depth of water ranges from 63 to 72 feet at mean low water.

(2) All excavated material shall be disposed of in accordance with law. The Contractor shall obtain a permit from the Supervisor of the Harbor of New York before dumping can legally be done in Long Island Sound.

(3) The maximum distance to the dumping ground is about 16.2 nautical miles. The dumping ground shall be plainly marked by the Contractor by conspicuous buoys or stakes, and no dumping shall be done unless an inspector appointed by the Contracting Officer is present at the time.

(4) Provided that a bidder submits with his bid an adequate description of a dumping ground other than that stipulated in these specifications, such deviation as to the place of disposal will be considered in making the award. If after the award of the contract a dumping ground other than that stipulated in these specifications is proposed, its acceptance will be subject to the approval of the Contracting Officer. The Contractor shall obtain the written consent of the owners of the substituted grounds and furnish evidence thereof to the Contracting Officer before proceeding with the work. All expenses incurred in connection with providing and making available such dumping grounds shall be borne by the Contractor, and all materials deposited thereon and all operations in connection therewith shall be at the Contractor's risk.

e. Measurement. - (1) A survey of the site area of the specified work will be made just prior to beginning the work, and all measurements will be based on this survey, without regard to any changes in the site area that may occur during the prosecution of the work.

(2) Measurement for excavation will be made by the cubic yard between the grade and side lines indicated on the drawings or staked in the field and the rock surface as indicated by the above mentioned survey.



f. Payment. - (1) Payment will be made for rock excavation at the contract unit price for Item 2, "Rock Excavation" and shall include the cost of hauling and disposal of the excavated material.

(2) No payment will be made for any rock excavation carried beyond the prescribed side lines or below the prescribed grade line as shown on the drawings or established by the Contracting Officer.

Bid No.  
Serial No. 19-016-47-54

BID  
(CONSTRUCTION CONTRACT)

Date:

To: New England Division  
Corps of Engineers  
War Department  
31 St. James Avenue  
Boston 16, Mass.

Project: CONSTRUCTION OF NORWICH CHANNEL IMPROVEMENT, SHETUCKET  
RIVER, NORWICH, CONNECTICUT

In compliance with your invitation for bids dated 28 March 1947, the undersigned hereby proposes to furnish all plant, labor, materials and equipment, and perform all work for the above-described project in strict accordance with the specifications, schedules, drawings and addenda numbered -

for consideration of the following unit prices:

Item No.	Estimated Quantities	Unit	Description of Item	Unit Price	Estimated Amount
1	13,600	lin.ft.	Close Drilling		
2	16,700	cu.yd.	Rock Excavation		
TOTAL					

PLANT AND EQUIPMENT SCHEDULE

Available Plant To Be Used

Rock Drilling Equipment

No.	Type	Capacity	Manufacturer	Age & Condition	Location

Excavating Equipment

No.	Type	Capacity	Manufacturer	Age & Condition	Location

Miscellaneous Equipment

No.	Type	Capacity	Manufacturer	Age & Condition	Location

The bidder agrees, upon receipt of written notice of an award of the contract within thirty (30) days after the date of opening of the bids, that he will execute W. D. Contract Form No. 2, in accordance with this bid as accepted, and if the consideration of the contract will exceed \$2,000 in amount will furnish to the Government a performance bond on U. S. Standard Form No. 25 or U. S. Standard Form No. 25-B and a payment bond on U. S. Standard Form No. 25-A or U. S. Standard Form No. 25-C with good and sufficient surety or sureties, as required by the specifications, at the time that the contract is executed.

The bidder further agrees that if awarded the contract he will commence the work within fifteen (15) calendar days after the date of receipt by him of notice to proceed, provide the plant and equipment as set forth in the PLANT AND EQUIPMENT SCHEDULE, and that he will fully complete the work ready for use not later than one hundred and eighty (180) calendar days after the date of receipt by him of notice to proceed.

It is hereby warranted that in the event award is made to the undersigned there will be furnished under this contract, or used in the performance of the work covered by this contract, only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States and only such manufactured articles, materials, and supplies as have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured, as the case may be, in the United States, except as noted below or otherwise indicated in this bid or authorized in the invitation.

Security (bid bond - U. S. Standard Form No. 24) if required by the invitation is inclosed.

\_\_\_\_\_  
By \_\_\_\_\_

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Business Address)

NOTE: If the bidder is a corporation, indicate State of Incorporation under signature; and if a partnership, give full names of all partners.